FlyBy Math[TM] **Alignment**
2007 Mississippi Mathematics Framework

Content Strand: Number and Operations

Competency 1. Understand relationships between numbers and their properties and perform operations fluently.

Objectives/Benchmarks	*FlyBy Math*[TM] Activities
f. Apply ratios and use proportional reasoning to solve real-world algebraic problems.	--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.

Content Strand: Algebra

Competency 2. Understand, represent, and analyze patterns, relations, and functions.

Objectives/Benchmarks	*FlyBy Math*[TM] Activities
b. Given a literal equation, solve for a specified variable of degree one.	--Use the distance-rate-time formula to predict and analyze aircraft conflicts.
c. Explain and illustrate how changes in one variable may result in a change in another variable.	--Interpret the slope of a line in the context of a distance-rate-time problem. --Use graphs to compare airspace scenarios for both the same and different starting conditions and the same and different constant (fixed) rates.
e. Use real-world data to express slope as a rate of change.	--Interpret the slope of a line in the context of a distance-rate-time problem.

Content Strand: Measurement

Competency 4. Demonstrate and apply various formulas in problem solving situations.

Objectives/Benchmarks	*FlyBy Math*[TM] Activities
b. Solve real-world problems involving measurements (i.e., circumference, perimeter, area, volume, distance, temperature, etc.).	--Calculate and measure the position and time of simulated aircraft. Represent that motion using tables, graphs, equations, and experimentation.

Content Strand: Data Analysis and Probability

Competency 5. Interpret data and apply concepts of probability.

Objectives/Benchmarks	*FlyBy Math*^{TM} Activities
a. Construct and interpret data involving histograms, bar graphs, line graphs, scatterplots, box-and-whisker plots, circle graphs, stem-and-leaf plots, frequency distributions, and tables.	--Represent distance, rate, and time data using tables, line plots, bar graphs, and line graphs. --Use tables, bar graphs, line graphs, a Cartesian coordinate system, and equations to model aircraft conflicts and predict outcomes.